

is also coal in the central and southern islands. Dr. MONTANO explored a good deal of the River Agusan in Mindanao. Between Bislig and Catel he found traces of an extensive upheaval of the coast line. Large banks of madreporal coral were raised above the level of the sea, extending in wide horizontal strata rounded by the waves which the north-east wind frequently dashes over them. The mineralogical notices in the Report are not very numerous, and the chapter concludes with a long account of earthquake phenomena. Of course, the great earthquake of 1880 is not passed over, but the author gives the account and diagrams of the Jesuit Padre FAURA, which have been already published. Dr. MONTANO'S remarks and observations on seismology are very interesting.

The meteorological portion of this work is less satisfactory, inasmuch as the author did not reside long enough in Malaysia or the Philippines to enable him to form any conclusions from actual observation. He might, however, have obtained excellent material from the published reports in Singapore, just as he has availed himself of the published reports of the Jesuit Observatory at Manila. These are very complete, but the whole subject, including that of typhoons, to which Manila is so liable, is about to be treated of in a separate work by Padre FAURA, who, for many years, has been the Director of the Observatory of the Ateneo Municipal.

This Report is especially interesting in the department of ethnography, and much that is new will be found in it. The author gives a very full record of facts, which, as he has no theory of his own to support, appear to be entirely trustworthy. He describes the Negritos or aboriginal mountain tribes in a very full manner. They correspond to our Sakeis in Malaysia, and are quite distinct from the bulk of the native population throughout the island. They are divided into different tribes according to the mountains where they dwell. They have never been civilised in any way, and all attempts to reclaim them have failed. Even on Mariveles, close as these mountains are to the city of Manila, they are to be found, uncontrolled by the Spanish Government and occasionally killing a solitary Chinese or Tagal who strays into their mountain fastnesses.

The great portion of the natives or Indians who inhabit the lowlands of the islands belong to the tribes or races which are distinguished as Tagalocs, Bisayas or Vishayas, and Bicol. They are all branches from the Malay stock, with a somewhat marked approach to the Chinese type.

Though I have said that Dr. MONTANO has no theory of his own to support, of course he has a system which he develops. He follows those who regard the people of Malaysia and all that portion of the great archipelago to the west of Flores, Ceram and Gilolo (the limit of the Papuan race) as belonging to three distinct races, viz.:—the Negritos, the Indonesians, and the Malays. Dr. MONTANO limits the application of this system to the countries which he visited. As he saw very little of the Malay Peninsula, that portion of his work is incomplete.

Making every allowance for the changes and admixtures to which every race is subject, the author gives the following idea of the system. The islands are supposed to be divided into three zones. The Negritos, occupy the internal or mountain region to which they have been driven by the Indonesian invasion. The Indonesians occupy the central zone, where they have been driven in their turn by the Malay races, which almost exclusively occupy the external zone and are spread on all the coasts of the Indian Archipelago as far as Flores.

So far the idea is simple enough, but it soon becomes complicated, even when applied to the Philippine Islands alone. There we have the Negrito in the mountains, but in most of the islands there is not much trace of the Indonesian. We find ourselves in presence of a Malay race divided into three peoples, as we may call them, speaking three different languages, though all of undoubted Malay origin. There are the Bicol, the Tagaloc, and the Bisayas. These form the bulk of the population of the islands. The Negritos are rapidly disappearing and do not number in Luzon and Mindanao more than 500 souls. The Bicol are close on half-a-million: the Tagalocs about twelve hundred thousand; and the Bisayas two million and a half. Dr. MONTANO confines his observations to the Indonesians of Mindanao, and enumerates them as about fifty thousand.

The three great tribes of Malays already described are con-

sidered as having a predominance of Chinese blood, and in the Gulf of Davao (Mindanao) and Sulu he finds Malays with a mixture of Arab and Indonesian blood. These are called Moors by the Spaniards and are all Mohammedans. They number about ten thousand souls.

The author divides the Negritos of Luzon and Mindanao into:—1.—Negritos; 2.—Mamanua; 3.—Negrito Mestizos. In Malacca he enumerates four tribes, namely:—1.—Manthra, 2.—Knabui, 3.—Udai, and 4.—Jakuns. Other Sakeis are not taken into account. Besides these, there are many Negritos in the other large islands of the Philippine group, such as Miudoro, Panay, &c., but of these Dr. MONTANO saw nothing.

There can be no doubt that there are three zones of races to be found in most of the larger islands of the Indian Archipelago. Nay more, we find the same or similar facts far beyond the limits ascribed to them by Dr. MONTANO. There are three zones of races very distinctly marked in Formosa, in Hainan probably, and there are even traces of the same in Japan. But when we come to analyze the constituents of these zones, the difficulty of classifying them under one head becomes manifest. In Borneo, for instance, the coast line is on the west, north and north-east overspread with Malays (Bajows), the central zone may roughly be said to be made up of the various tribes of Dusuns and Dyaks. But the Dusuns are of partly Chinese origin, and there does not seem to be anything in common between them and the Indonesians. In the centre we have wild mountain tribes, of which little is known, but yet sufficient to say that they are not Negritos.

In Formosa the Negritos of the mountains are a fierce savage tribe very like those of Luzon, but more treacherous. The central zone is a mixture of Chinese and possibly a Malay race, while the coast line is entirely Chinese. We have no traces of a distinct Indonesian population in the Malay Peninsula, but any person who pays much attention to the diversities of type amongst the Malays in the various States must see at once that some admixture of races must have taken place. Of course, the recent mestizos of Malay-Chinese and Indo-Malays are taken into account by Dr. MONTANO.

The portion of this work which is devoted to language will

be read with great interest by the student. The author states that all the dialects of the independent tribes which he visited belong to a family of languages which he calls Malayo-Polynesian. This result is the more important as it tends to throw some little light on the approximation which some have found between the Japanese language and the Polynesian. In Japanese, Malay words and a Malay structure are also slightly perceptible. What if the Polynesian races are the ultimate dispersion of a race which once spread over and peopled the east even as far as Japan? In the Philippines Dr. MONTANO takes Tagaloc as the type, comprising under that group the Bicol and Bisaya dialects. They are almost as distinct from each other as they are from the Malay, but yet they are all of Malay origin beyond a doubt.

The author says that in all these languages or dialects there are no such things as parts of speech properly speaking. Theoretically all the words may be considered as roots and by themselves having no more than a vague sense. Their value as subject or object verb or quality is determined by affixes and suffixes less numerous in Malay than in the Tagaloc dialects, where their use is extremely complicated. This renders the language difficult for Europeans. Yet most of the monks speak it fluently, and they have published so many and such excellent grammars and dictionaries of all the dialects that the study of them and the elucidation of their history is much facilitated. The Negritos have no language of their own, at least now in the Philippines. They speak a corrupted Tagaloc. It is a pity that we know so little of the language of our Sakeis. Mr. J. E. DE LA CROIX has published something on the subject (*Journal of the Anthropological Institute*, August and November, 1882), and we may hope that before long some of the officers of Government in the Malay Peninsula will take the matter up.

Dr. MONTANO gives very full vocabularies of Malay, Tagaloc, Bisaya, Buled-Upih, Negrito, Samal, Manobo, Bagobo, Tagacacolo, Bilan, and Atas. The last five are small tribes in Mindanao with very distinct dialects. Buled-Upih is the language of the natives on the Kinabatangan River in north-east Borneo. The orthography of the Malay given in this book is peculiar, and adds one more to the ways of rendering that language accessible

to Europeans by odd combinations of letters. Dr. MONTANO'S mode may be better than its predecessors, but at any rate it differs from them. At present no two books agree, and the student is fairly bewildered. Who will put an end to this confusion?

Connected with the subject of ethnology, there are thirty beautifully executed phototypes by QUINSAC. Their execution leaves nothing to be desired. There is also a plate representing microscopic sections of hair from various tribes. These sections show an oval, or sometimes a triangular and quadrangular outline, but never a cylindrical one.

The chapter on pathology is exceedingly interesting, containing as it does notices of all the various diseases amongst the natives which came under the author's notice. He also gives some well-considered observations on the effect of the climate upon Europeans. The subject, however, is too long to be dealt with here, and the same may be said on the chapters devoted to commerce and agriculture. This notice may be concluded by stating that Dr. MONTANO has contributed a most valuable addition to our knowledge of the Philippine Islands, which will hereafter be a standard work of reference on the subject. Scientific men will look forward anxiously to the portions especially devoted to zoology and botany. Even in this report there is a list of native names of plants with their corresponding botanical names and the orders to which they belong, amounting to 190 plants. A similar list is given by VIDAL, which the writer of this notice has found most useful in travelling through the Philippines, but MONTANO'S list contains tribal names which are not found elsewhere.

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“Work and Adventure in New Guinea, 1877 to 1885,” by Rev. JAMES CHALMERS, and Rev. W. WYATT GILL.—*The Religious Tract Society, 1885.*

Just a year has elapsed since Commodore EKSKINE proclaimed a British protectorate over a large portion of the southern shores of New Guinea extending from the limit of

the territory claimed by the Government of the Netherlands, about Longitude 141° E., to East Cape including certain adjacent islands. A High Commissioner (Major-General Sir PETER SCRATCHLEY, R.E.) has been appointed, and may perhaps soon be heard of off the coast of the Protectorate. In the meantime the work of Messrs. CHALMERS and GILL, which has been lately published, comes opportunely to afford the most recent information, from those best qualified to give it, of the territory in which Great Britain has acquired new interests and responsibilities, and of the manners and customs of the tribes inhabiting it.

The authors are missionaries of the London Missionary Society, but their book is no mere chronicle of mission work; it contains valuable ethnographical notes about comparatively unknown tribes, and records of exploration in new regions. The mission, which dates only from 1871, seems now to be firmly established; the head-quarters of the missionaries are at Port Moresby, while thirty-two native teachers, most of them South Sea Islanders, but some of them New Guinea converts, are stationed at various villages along the south-eastern coast of the great island between Motu-Motu and East Cape.

The only specimen of the language given consists of the names of the months (thirteen) and the numerals in the Motu dialect, which is used by the natives of Port Moresby. Other dialects are mentioned—Roro, Hula, Koiari, &c.—and the natives of different districts seem to be unintelligible to each other. At Teste Island several Polynesian words were recognised in the conversation of the natives with each other.

The people of Port Moresby speak of themselves as being of the same origin as the natives of the gulf of Papua. "Two men sprung out of the earth—Kerimaikuku and Kerimaikape—but no woman; their only companion was a female dog. Anxious for children, a daughter and a son were born to them. When these were grown up they married, and children being born the inhabitants soon numbered fourteen. They then separated, two going right back to the mountains, and from them sprung the great Koiari tribe; two going not so far inland, and dwelling on the low lands and from them sprung the Koitapuans, a tribe of sorcerers; the remainder all going to Elema, where they remained many generations."

The only account that a mountain tribe in the interior of the Kabadi district could give of their faith was that their great spirit lived on the mountains and was called Oarova ; he had a wife named Ooirova and they had a son called Kurorova.

A native of Orokolo, a place at the head of the gulf of Papua, furnished the following particulars as to the beliefs of his tribe:—

“The spirit *Kanitu* made two men and two women who came out of the earth. The name of the elder brother was *Leleva* and the younger *Vovod* ; from them have sprung all mankind. This spirit lives in spirit-land on the mountains and when he visits a village he rests on the ridge of the temple. He is represented in the temple in wicker-work ; there he is consulted and presents made to him.”

In connection with this word *Kanitu*, or *Kanidu*, which by the way seems to have been adopted by the missionaries as a mode of translating the word *God*, it is noticeable that the word *Sinitu*, meaning a malevolent spirit, is found among certain Malayan tribes, *e.g.*, the islanders of Mantawe off the West Coast of Sumatra. See *Journl. Ind. Arch.*, IX, 287.

As is the case with all of the larger eastern islands, the interior of New Guinea seems to be inhabited by aboriginal tribes who have been driven back to the hills by a robuster race now occupying the coast districts. While the latter are described as being in places as fair as South Sea Islanders, the former are said to be black with woolly hair, beards and moustaches, and are all cannibals. The physique of the people is found to improve as one travels eastward from Port Moresby, and Dufaure island is mentioned as the point of meeting of two races—one from the Kerepunu side and the other from the east. Both would seem to differ considerably from the Papuans of the Gulf. At South Cape the people are small and puny and much darker than the Eastern Polynesians.

The houses of the natives are built on piles, and in many places villages are found composed entirely of houses built in this way in shallow water on the sea-shore, communication being maintained between them by horizontal poles supported on perpendicular ones. Mr. GILL describes these as [“Swiss-lake-like villages” in allusion, of